=> d

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN **65979-42-2** REGISTRY
CN D-Aminoacylase (9CI) (CA INDEX NAME)
OTHER NAMES:
CN D-Amino acid acylase
CN N-Acyl-D-amino acid amidohydrolase
MF Unspecified
CI MAN
LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CASREACT,
      TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            63 REFERENCES IN FILE CA (1962 TO DATE)
            63 REFERENCES IN FILE CAPLUS (1962 TO DATE)

WEST Search History

DATE: Friday, March 21, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB; PLUR=YES; OP=ADJ			
L11	L10 and l7	9	L11
L10	L9 and (bacter$7 Or eubacter$7)	13	L10
L9	L8 and (d amino acid)	15	L9
L8	d aminoacylase or d amino acid acylase or n acyl d amino acid amidohydrolase	16	L8
L7	L6 or l5 or l4 or l3 or l2 or l1	12421	L7
L6	(((530/350)!.CCLS.))	9300	L6
L5	(((435/227)!.CCLS.))	212	L5
L4	(((435/195)!.CCLS.))	483	L4
L3	(((435/183)!.CCLS.))	2580	L3
L2	(((435/106)!.CCLS.))	362	L2
L1	((435/41)!.CCLS.)	566	L1

END OF SEARCH HISTORY

WEST

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Search Results - Record(s) 1 through 9 of 9 returned.

☐ 1. Document ID: US 20020102662 A1

L11: Entry 1 of 9 File: PGPB Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102662
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020102662 A1

TITLE: Methods for racemizing N-acylamino acids and producing optically active amino acids

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

☐ 2. Document ID: US 20020090684 A1

L11: Entry 2 of 9 File: PGPB Jul 11, 2002

PGPUB-DOCUMENT-NUMBER: 20020090684
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020090684 A1

TITLE: Process for the production of amino acids

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

☐ 3. Document ID: US 6514742 B1

L11: Entry 3 of 9 File: USPT Feb 4, 2003

US-PAT-NO: 6514742
DOCUMENT-IDENTIFIER: US 6514742 B1

TITLE: D-aminoacylases, method for producing the same, and method for producing D-amino acids using the same

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

☐ 4. Document ID: US 6030823 A

L11: Entry 4 of 9 File: USPT Feb 29, 2000

US-PAT-NO: 6030823
DOCUMENT-IDENTIFIER: US 6030823 A

TITLE: D-aminoacylase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc
Image

☐ 5. Document ID: US 6015698 A

L11: Entry 5 of 9 File: USPT Jan 18, 2000

US-PAT-NO: 6015698
DOCUMENT-IDENTIFIER: US 6015698 A

TITLE: Method of producing D-amino acid and method of producing amine

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc
Image

☐ 6. Document ID: US 5916774 A

L11: Entry 6 of 9 File: USPT Jun 29, 1999

US-PAT-NO: 5916774
DOCUMENT-IDENTIFIER: US 5916774 A

TITLE: D-aminoacylase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc
Image

☐ 7. Document ID: US 5587303 A

L11: Entry 7 of 9 File: USPT Dec 24, 1996

US-PAT-NO: 5587303
DOCUMENT-IDENTIFIER: US 5587303 A

TITLE: Production process of L-amino acids with bacteria

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc
Image

☐ 8. Document ID: US 5206162 A

L11: Entry 8 of 9 File: USPT Apr 27, 1993

US-PAT-NO: 5206162
DOCUMENT-IDENTIFIER: US 5206162 A

TITLE: Process for making D-aminoacylase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw. Desc

☐ 9. Document ID: US 5194383 A

L11: Entry 9 of 9 File: USPT Mar 16, 1993

US-PAT-NO: 5194383
DOCUMENT-IDENTIFIER: US 5194383 A

TITLE: Process for making L-aminoacylase

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Image | KWIC | Draw. Desc

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Terms	Documents
L10 and l7	9

Display Format: - Change Format

Previous Page Next Page

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=> d his

     (FILE 'HOME' ENTERED AT 13:22:16 ON 21 MAR 2003)

     FILE 'REGISTRY' ENTERED AT 13:22:48 ON 21 MAR 2003
L1             1 S 65979-42-2/RN

     FILE 'HCAPLUS' ENTERED AT 13:23:42 ON 21 MAR 2003

     FILE 'CAOLD, CAPLUS, CASREACT, CROPU, DGENE, DPCI, ENCOMPPAT, ENCOMPPAT2,
     EUROPATFULL, IFIPAT, INPADOC, JAPIO, PAPERCHEM2, PATDD, PATDPA, PATOSDE,
     PATOSEP, PATOSWO, PCTFULL, PIRA, RAPRA, SYNTHLINE, TULSA, TULSA2,
     USPATFULL, USPAT2, WPIDS' ENTERED AT 13:23:45 ON 21 MAR 2003

     FILE 'REGISTRY' ENTERED AT 13:23:50 ON 21 MAR 2003
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L2           SEL L1 1- CHEM :       4 TERMS
               SET SMARTSELECT OFF

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     EUROPATFULL, IFIPAT, INPADOC, JAPIO, PAPERCHEM2, PATDD, PATDPA, PATOSDE,
     PATOSEP, PATOSWO, PCTFULL, PIRA, RAPRA, SYNTHLINE, TULSA, TULSA2,
     USPATFULL, USPAT2, WPIDS' ENTERED AT 13:23:51 ON 21 MAR 2003
L3           236 S L2
L4            56 S L3 (L) (BACTER? OR EUBACTER?)
L5            45 S L4 (L) (D AMINO ACID)
L6            38 DUP REM L5 (7 DUPLICATES REMOVED)
L7            15 S L6 AND PY<2000
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=> d ibib ab 1-15

L7 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:318070 CAPLUS
DOCUMENT NUMBER: 120:318070
TITLE: N-acyl-D-amino-acid amidohydrolase
AUTHOR(S): Moriguchi, Mitsuaki
CORPORATE SOURCE: Fac. Eng., Oita Univ., Oita, 870-11, Japan
SOURCE: Kagaku to Seibutsu (**1994**), 32(4), 217-9
CODEN: KASEAA; ISSN: 0453-073X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 15 refs. on N-acyl-D-amino acid amidohydrolase of Pseudomonas, Streptomyces, and Alcaligenes, its induction enhancement by N-acetylamino acids, substrate specificity of the enzyme, and homol. of the N-terminal amino acid sequences among the strains.

L7 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:548027 CAPLUS
DOCUMENT NUMBER: 93:148027
TITLE: Deacetylation of PS-5, a new .beta.-lactam compound. I. Microbial deacetylation of PS-5
AUTHOR(S): Fukagawa, Yasuo; Kubo, Katsuro; Ishikura, Tomoyuki; Kouno, Kageaki
CORPORATE SOURCE: Cent. Res. Lab., Sanraku-Ocean Co., Ltd., Fujisawa, Japan
SOURCE: Journal of Antibiotics (**1980**), 33(6), 543-9
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English
AB PS-5 (I) [67007-79-8] deacetylated to NS-5 (II) [74806-75-0] by L-amino acid acylase [9012-37-7] from porcine kidney and **D-amino acid acylase** [**65979-42-2**] from Streptomyces olivaceus, but not by L-amino acid acylase from Aspergillus sp. Using PS-5, N-chloroacetyl-L-phenylalanine, and N-chloroacetyl-D-valine as substrates, acylase producers were screened among facultative MeOH-assimilating **bacteria**. Most of the microbes tested were active and could be classified into 2 groups of L-acylase producers and L- and D-acylase producers. Pseudomonas Sp. 1158, which deacetylated the 3 substrates, was chosen for further study. Cells of the **bacterium** entrapped in polyacrylamide gel and its acylase activities immobilized on DEAE-Sephadex were useful for conversion of PS-5 to NS-5.

L7 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:512323 CAPLUS
DOCUMENT NUMBER: 93:112323
TITLE: D-Aminoacylase
PATENT ASSIGNEE(S): Sanraku-Ocean Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55042534	A2	19800325	JP 1978-115323	19780919 <--
JP 60031477	B4	19850722		

PRIORITY APPLN. INFO.: JP 1978-115323 19780919
AB A **D-aminoacylase** (I) [**65979-42-2**] was produced by culturing a facultatively MeOH-assimilating **bacterium** at 10-40.degree. and at pH 4.0-9.0. I was reactive to N-acyl **D-amino acids** but not to N-acyl glucosamines or N-acyl ethanolamines, optimally reacting at .apprx.80.degree. and at pH 7.4. I was stable at <80.degree. and at pH 6-7 and had a mol. wt. of 100,000, an isoelec. point of 4.95, and an elemental anal. of C 54.33, H 7.19, and N 16.37. I was inhibited by Hg2+, Cu2+, and p-chloromercuribenzoate. Thus,

Pseudomonas species 1158 was cultured with shaking at 28.degree. for 4 days on 100 mL medium (pH 7.0) contg. glucose 2, Pharmamedia 0.8, and corn steep liquor 0.5%. The culture cells were suspended in 500 mL of 0.01M phosphate buffer (pH 7.4) and sonicated to yield an ext. The ext. (830 mL) was mixed with 3 g streptomycin H2SO4 and centrifuged at 10,000 rpm for 30 min at 0.degree. to yield 800 mL supernatant. I in the supernatant was pptd. with addn. of (NH4)2SO4 and purified by column chromatog. on DEAE-Sephacel, Sephadex G-100, and G-200.

L7 ANSWER 4 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 950706 EUROPATFULL EW 199942 FS OS
TITLE: **D-aminoacylase**.
D-Aminoacylase.
D-aminoacylase.
INVENTOR(S): Tokuyama, Shinji, Goudoushukusha Oshika Jutaku 5-16, 6-20, Oshika, 3-chome, Shizuoka-shi, Shizuoka 422-8021, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho, Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1999076 EP 0950706 A2 991020
SOURCE: Wila-EPZ-1999-H42-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE; R AL; R LT; R LV; R MK; R RO; R SI
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 950706	**A2**	**19991020**

'OFFENLEGUNGS' DATE: 19991020
APPLICATION INFO.: EP 1999-104069 19990317
PRIORITY APPLN. INFO.: JP 1998-89246 19980317
JP 1999-35620 19990215

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER: 950706 EUROPATFULL EW 200310 FS PS
TITLE: **D-aminoacylase** from Sebekia benihana.
D-Aminoacylase aus Sebekia benihana.
D-aminoacylase de Sebekia benihana.
INVENTOR(S): Tokuyama, Shinji, Goudoushukusha Oshika Jutaku 5-16, 6-20, Oshika, 3-chome, Shizuoka-shi, Shizuoka 422-8021, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho, Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: MEPB2003010 EP 0950706 B1 0020
SOURCE: Wila-EPS-2003-H10-T1
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R DE; R FR; R GB
PATENT INFO.PUB.TYPE: EPB1 EUROPAEISCHE PATENTSCHRIFT
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 950706	**B1**	**20030305**

'OFFENLEGUNGS' DATE: 19991020
APPLICATION INFO.: EP 1999-104069 19990317

PRIORITY APPLN. INFO.: JP 1998-89246 19980317
JP 1999-35620 19990215
REFERENCE PAT. INFO.: US 5206162 A
REF. NON-PATENT-LIT.: DATABASE WPI Section Ch, Week 198907 Derwent Publications Ltd., London, GB; Class B04, AN 1989-049889 XP002118788 & JP01005488 A (DAICEL CHEM IND LTD), 10 January 1989 (1989-01-10) MORIGUCHI ET AL.: 'Production, purification and characterization of D-aminoacylase from Alcaligenes xylosoxydans subsp. xylosoxydans A-6' BIOSCIENCE BIOTECHNOLOGY BIOCHEMISTRY vol. 57, no. 7, 1993, TOKYO, JAPAN, pages 1149 - 1152

ABEN A novel **D-aminoacylase** was derived from a microorganism belonging to the genus Sebekia. This enzyme is useful for producing **D-amino acids** from N-acetyl-DL-amino acids on an industrial scale.

L7 ANSWER 5 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 896057 EUROPATFULL EW 199906 FS OS
TITLE: **D-aminoacylase**.
D-Aminoacylase.
D-aminoacylase.
INVENTOR(S): TOKUYAMA, Shinji, Goudoushukuscha Oshika Jutaka 5-16, 6-20, Oshika 3, Shizuoka-shi, Shizuoka 422-8021, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho, Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1999011 EP 0896057 A2 990210
SOURCE: Wila-EPZ-1999-H06-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R CY; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 896057	**A2**	**19990210**

'OFFENLEGUNGS' DATE: 19990210
APPLICATION INFO.: EP 1998-114122 19980728
PRIORITY APPLN. INFO.: JP 1997-206288 19970731
JP 1998-141932 19980522

ABEN This invention provides a novel **D-aminoacylase** and a method for producing said enzyme, and also a method for producing **D-amino acids** using said aminoacylase. The **D-aminoacylase** of the invention having novel properties can be derived from microorganisms belonging to the genus Amycolatopsis. The use of the enzyme enables industrial production of **D-amino acids**.

L7 ANSWER 6 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 859060 EUROPATFULL EW 199834 FS OS
TITLE: Method of producing **D-amino acid** and amine.
Verfahren zur Herstellung einer D-Aminosaeure und eines Amins.
Procede de preparation d'un acide amine et d'une amine.
INVENTOR(S): Nikaido, Teruyuki, 2-13-12-508, Hanabatake, Tsukuba-shi,Ibaraki 300-3261, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, Ltd., 1, Teppo-cho,

Sakai-shi, Osaka 590-0905, JP
PATENT ASSIGNEE NO: 283799
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1998056 EP 0859060 A2 980819
SOURCE: Wila-EPZ-1998-H34-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPA2 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 859060	**A2**	**19980819**
'OFFENLEGUNGS' DATE:		19980819
APPLICATION INFO.: EP 1998-102525		19980213
PRIORITY APPLN. INFO.: JP 1997-30981		19970214
JP 1998-30302		19980213

ABEN **D-amino acid** with high optical purity represented by formula (1-A) and/or formula (1-B), <image> wherein R represents H or OH, <image> wherein R.sub1., R.sub2. each represents H or OH, and amine represented by formula (2-A) and/or formula (2-B) <image> wherein R represents H or OH, <image> wherein R.sub1. and R.sub2. each represents H or OH,

can be produced economically in an industrial scale by contacting a mixture of enantiomers of amino acid represented by the above formula (1-A) and/or formula (1-B) with a microorganism capable of selectively degrading L-amino acid or with at least one of the treated products of the microorganism.

L7 ANSWER 7 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 853128 EUROPATFULL EW 199829 FS OS
TITLE: Method for producing D-tryptophan.
Verfahren zur Herstellung von D-Tryptophan.
Procede pour la production de D-tryptophane.
INVENTOR(S): Yamamoto, Hiroaki, 1-14-14-103, Sengen, Tsukuba-shi, Ibaraki 305, JP;
Mitsuhashi, Kazuya, 2-13-12-503, Hanabatake, Tsukuba-shi, Ibaraki 305, JP;
Matsuyama, Akinobu, 1-14-14-304, Sengen, Tsukuba-shi, Ibaraki 305, JP;
Tomita, Fusao, 5-7-8, Hokkan 4-jo, Nishi-ku, Sapporo-shi, Hokkaido 063, JP
PATENT ASSIGNEE(S): DAICEL CHEMICAL INDUSTRIES, LTD., 1, Teppo-cho, Sakai-shi, Osaka 590, JP
PATENT ASSIGNEE NO: 1547242
AGENT: VOSSIUS & PARTNER, Siebertstrasse 4, 81675 Muenchen, DE
AGENT NUMBER: 100314
OTHER SOURCE: ESP1998048 EP 0853128 A1 980715
SOURCE: Wila-EPZ-1998-H29-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 853128	**A1**	**19980715**
'OFFENLEGUNGS' DATE:		19980715
APPLICATION INFO.: EP 1998-100314		19980109
PRIORITY APPLN. INFO.: JP 1997-2228		19970109
JP 1997-136267		19970527
JP 1997-329792		19971201

ABEN · The method for producing D-tryptophan with high optical purity and high yield is provided, which comprises contacting a mixture of D,L-tryptophan with organisms which produce tryptophanase to degrade L-tryptophan selectively, thereby increasing the content of D-tryptophan in D,L-tryptophan.

L7 ANSWER 8 OF 15 EUROPATFULL COPYRIGHT 2003 WILA

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER:	304021 EUROPATFULL EW 198908 FS OS STA B
TITLE:	Acylamino acid racemase, Production and use thereof. Acylaminosaeure-Racemase, Herstellung und Verwendung. Racemase d'un acide amine acyle, preparation et utilisation.
INVENTOR(S):	Takahashi, Takeshi, 14-13, Kohmyodai 2-chome, Izumi Osaka 590-02, JP; Hatano, Kazunori, 2-40, Seiwadainishi 3-chome, Kawanishi Hyogo 666-01, JP
PATENT ASSIGNEE(S):	Takeda Chemical Industries, Ltd., 27, Doshomachi 2-chome Higashi-ku, Osaka-shi Osaka, 541, JP
PATENT ASSIGNEE NO:	204703
AGENT:	von Kreisler, Alek, Dipl.-Chem. et al, Patentanwaelte Von Kreisler-Selting-Werner Deichmannhaus am Hauptbahnhof, D-5000 Koeln 1, DE
AGENT NUMBER:	12434
OTHER SOURCE:	ESP1989008 EP 0304021 A2 890222
SOURCE:	Wila-EPZ-1989-H08-T1
DOCUMENT TYPE:	Patent
LANGUAGE:	Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES:	R AT; R BE; R CH; R DE; R ES; R FR; R GB; R GR; R IT; R LI; R LU; R NL; R SE
PATENT INFO.PUB.TYPE:	EPA2 EUROPAEISCHE PATENTANMELDUNG

PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 304021	**A2**	**19890222**

'OFFENLEGUNGS' DATE:	19890222
APPLICATION INFO.:	EP 1988-113315 19880817
PRIORITY APPLN. INFO.:	JP 1987-208484 19870821

GRANTED PATENT - ERTEILTES PATENT - BREVET DELIVRE

ACCESSION NUMBER:	304021 EUROPATFULL EW 199317 FS PS STA B
TITLE:	Acylamino acid racemase, Production and use thereof. Acylaminosaeure-Racemase, Herstellung und Verwendung. Racemase d'un acide amine acyle, preparation et utilisation.
INVENTOR(S):	Takahashi, Takeshi, 14-13, Kohmyodai 2-chome, Izumi Osaka 590-02, JP; Hatano, Kazunori, 2-40, Seiwadainishi 3-chome, Kawanishi Hyogo 666-01, JP
PATENT ASSIGNEE(S):	Takeda Chemical Industries, Ltd., 1-1, Doshomachi 4-chome, Chuo-ku, OSAKA, JP
PATENT ASSIGNEE NO:	204703
AGENT:	von Kreisler, Alek, Dipl.-Chem. et al, Patentanwaelte von Kreisler, Selting, Werner, Deichmannhaus am Hauptbahnhof, W-5000 Koeln 1, DE
AGENT NUMBER:	12434
OTHER SOURCE:	EPB1993021 EP 0304021 B1 930428
SOURCE:	Wila-EPS-1993-H17-T1
DOCUMENT TYPE:	Patent
LANGUAGE:	Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES:	R AT; R BE; R CH; R DE; R ES; R FR; R GB; R GR; R IT; R LI; R LU; R NL; R SE
PATENT INFO.PUB.TYPE:	EPB1 EUROPAEISCHE PATENTSCHRIFT

PATENT INFORMATION:

PATENT NO	KIND	DATE

	EP 304021	B1 19930428
'OFFENLEGUNGS' DATE:		19890222
APPLICATION INFO.:	EP 1988-113315	19880817
PRIORITY APPLN. INFO.:	JP 1987-208484	19870821
REFERENCE PAT. INFO.:	DE 2352579 A	DE 3712539 A
	FA 2586702 A	

ABEN The present invention relates to acylamino acid racemase, production and use thereof.

The acylamino acid racemase of the present invention racemizes optically active N-acyl-.alpha.-aminocarboxylic acid alone at pH values around the neutral level at a normal temperature under normal pressure in the presence of optically active amino acid; its use in combination with D- or L-aminoacylase enables the production of optically active D- or L-.alpha.-amino acid from DL-acyl-.alpha.-aminocarboxylic acid at a high level of efficiency.

L7 ANSWER 9 OF 15 IFIPAT COPYRIGHT 2003 IFI

AN	2354829 IFIPAT;IFIUDB;IFICDB
TITLE:	PROCESS FOR MAKING D-AMINOACYLASE
INVENTOR(S):	Lin, Chyuan S, Taipei, TW Tsai, Ying C, Taipei, TW Tseng, Ching P, Taipei, TW Yang, Yunn B, Taipei, TW
PATENT ASSIGNEE(S):	National Science Council of Republic of China, Taipei, TW
PRIMARY EXAMINER:	Lilling, Herbert J
AGENT:	Jacobson, Price, Holman & Stern

	NUMBER	PK	DATE
PATENT INFORMATION:	US 5206162		19930427
APPLICATION INFORMATION:	US 1991-778240		19911017
EXPIRATION DATE:	17 Oct 2011		
FAMILY INFORMATION:	US 5206162		19930427
DOCUMENT TYPE:	UTILITY EXPIRED REINSTATED		
FILE SEGMENT:	CHEMICAL GRANTED		
OTHER SOURCE:	CA 119:93717		
MICROFILM REEL NO:	005883 FRAME NO: 0303		
NUMBER OF CLAIMS:	1		
GRAPHICS INFORMATION:	4 Drawing Sheet(s), 4 Figure(s).		

AB A process for making D-aminoacylse includes adding 1% N-acetylDL-amino acid preferably N-acetyl-DL-methionine and N-acetyl-DLleucine in a culturing medium incubated with **bacteria** selected from the strain of Alcaligenes faecalis for culturing the **bacteria** and for inductively promoting an enzyme reaction to produce the **D-aminoacylase** which is able to hydrolyze **D-amino acids** and unable to hydrolyze L-amino acids.

L7 ANSWER 10 OF 15 USPATFULL

ACCESSION NUMBER:	1999:72474 USPATFULL
TITLE:	Method for producing D-tryptophan
INVENTOR(S):	Yamamoto, Hiroaki, Ibaraki, Japan Mitsuhashi, Kazuya, Ibaraki, Japan Matsuyama, Akinobu, Ibaraki, Japan Tomita, Fusao, Hokkaido, Japan
PATENT ASSIGNEE(S):	Daicel Chemical Industries, Ltd., Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5916781		19990629	<--
APPLICATION INFO.:	US 1998-5110		19980109	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-2228	19970109
	JP 1997-136267	19970527
	JP 1997-329792	19971201

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lilling, Herbert J.
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 651
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The method for producing D-tryptophan with high optical purity and high yield is provided, which comprises contacting a mixture of D,L-tryptophan with organisms which produce tryptophanase to degrade L-tryptophan selectively, thereby increasing the content of D-tryptophan in D,L-tryptophan.

L7 ANSWER 11 OF 15 USPATFULL
ACCESSION NUMBER: 1999:72467 USPATFULL
TITLE: D-aminoacylase
INVENTOR(S): Tokuyama, Shinji, Shizuoka, Japan
PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5916774		19990629	<--
APPLICATION INFO.:	US 1998-122386		19980724	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1997-206288	19970731
	JP 1998-141932	19980522

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wax, Robert A.
ASSISTANT EXAMINER: Srivastava, Devesh
LEGAL REPRESENTATIVE: Fish & Richardson P.C.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 819
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides a novel D-aminoacylase and a method for producing said enzyme, and also a method for producing D-amino acids using said aminoacylase. D-aminoacylase of the invention having novel properties can be derived from a microorganisms belonging to genus Amycolatopsis. The use of the enzyme enables industrial production of D-amino acids.

L7 ANSWER 12 OF 15 USPATFULL
ACCESSION NUMBER: 96:118517 USPATFULL
TITLE: Production process of L-amino acids with bacteria
INVENTOR(S): Wakamoto, Akiko, Toda, Japan
Takahashi, Osamu, Toda, Japan
Furuhashi, Keizo, Toda, Japan
Miura, Akira, Toda, Japan
PATENT ASSIGNEE(S): Nippon Mining Company, Ltd., Tokyo, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5587303		19961224	<--
APPLICATION INFO.:	US 1994-277775		19940720	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1990-632022, filed on 21 Dec 1990, now abandoned which is a continuation-in-part

of Ser. No. US 1989-318111, filed on 2 Mar 1989, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1988-52694	19880308
	JP 1988-52695	19880308
	JP 1988-55781	19880309
	JP 1990-155661	19900614
	JP 1990-191676	19900719
	JP 1990-191677	19900719

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Marx, Irene
LEGAL REPRESENTATIVE: Schmeiser, Olsen & Watts
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 1799
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A production process of optically active amino acids comprising causing a microorganism belonging to Rhodococcus, Mycobacterium, Arthrobacter, Nocardiopsis or Bacillus sp. and having nitrile-hydrolyzing activity to act on a nitrile or derivative thereof.

L7 ANSWER 13 OF 15 USPATFULL
ACCESSION NUMBER: 93:20479 USPATFULL
TITLE: Process for making L-aminoacylase
INVENTOR(S): Tsai, Ying C., Taipei, Taiwan, Province of China
Hu, Hsiang L., Taipei, Taiwan, Province of China
Yang, Yunn B., Taipei, Taiwan, Province of China
PATENT ASSIGNEE(S): National Science Council of Republic of China, Taipei, Taiwan, Province of China (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5194383		19930316	<--
APPLICATION INFO.:	US 1991-795504		19911121	(7)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lilling, Herbert J.
LEGAL REPRESENTATIVE: Jacobson, Price, Holman & Stern
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 300
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for making L-aminoacylase includes a cultivation of microorganism selected from a specy of Alcaligenes, especially the Alcaligenes denitrificans DA 181, and a separation of a produced L-aminoacylase from the bacterial cells for obtaining the L-aminoacylase which may be further purified for the production of L-amino acid. The acylase made by such a process may have an increased stability, beneficial for its commercial and medical values.

L7 ANSWER 14 OF 15 USPATFULL
ACCESSION NUMBER: 91:1096 USPATFULL
TITLE: Acylamino acid racemase, production and use thereof
INVENTOR(S): Takahashi, Takeshi, Izumi, Japan
Hatano, Kazunori, Kawanishi, Japan
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Osaka, Japan (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4981799		19910101	<--
APPLICATION INFO.:	US 1988-227882		19880803	(7)

	NUMBER	DATE

PRIORITY INFORMATION: JP 1987-208484 19870821
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Rosen, Sam
LEGAL REPRESENTATIVE: Wenderoth, Lind & Ponack
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 869
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to acylamino acid racemase, production and use thereof.

The acylamino acid racemase of the present invention racemizes optically active N-acyl-.alpha.-aminocarboxylic acid alone at pH values around the neutral level at a normal temperature under normal pressure in the presence of optical active amino acid; its use in combination with D- or L-aminoacylase enables the production of optically active D- or L-.alpha.-amino acid from DL-acyl-.alpha.-aminocarboxylic acid at a high level of efficiency.

L7 ANSWER 15 OF 15 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 1987-196299 [28] WPIDS
DOC. NO. CPI: C1987-082106
TITLE: New streptomyces tuirus - has D-amino-acylase producing power and defects L-amino-acylase producing power, for use in enzyme(s) for D-amino acid prodn..
DERWENT CLASS: B05 D16 E19
PATENT ASSIGNEE(S): (AGEN) AGENCY OF IND SCI & TECHNOLOGY; (DAIL) DAICEL CHEM IND LTD
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	
JP 62126969	A	19870609	(198728)*		4	<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 62126969	A	JP 1985-265861	19851126

PRIORITY APPLN. INFO: JP 1985-265861 19851126

AB JP 62126969 A UPAB: 19930922
Streptomyces tuirus which has **D-aminoacylase** producing power and substantially defects L-aminoacylase producing power, is a new mutant.

USE/ADVANTAGE - **D-aminoacylase** is an enzyme useful in prodn. of **D-amino acid. D -amino acid** may be produced in high optical purity may be produced by means of D-aminocylase in enzymatic reaction.

In an example, streptomyces tuirus IFO 13418 was cultured in Agar-agar slant culture medium. The grown **bacteria** body was suspended in physiological salt water contg. 0.01% Tween 80. Resultant suspension was filtered with **bacteria**-free gauze to give spore-suspension (contg. 10 power 8 to 10 power 7/ml of spore). NIG was added into the spore suspension (concn. 29 microg/ml), incubated at 30 deg.C for 30-9L mins. The spore was washed with physiological salt water twice, coated over agar-agar flat plate culture medium, cultured at 30 deg.C for 6-12 days. Propagated colony was cultured in liq. culture medium at 30 deg.C for 2-4 days. Obtd. **bacteria** body was collected, washed with 0.1 M phosphoric acid buffer soln., treated with N-acetyl-L-amino acid at 30 deg.C for 24 hrs.
0/0

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=> d his

     (FILE 'HOME' ENTERED AT 12:19:53 ON 21 MAR 2003)

     FILE 'REGISTRY' ENTERED AT 12:20:14 ON 21 MAR 2003
L1             1 S 65979-42-2/RN

     FILE 'HCAPLUS' ENTERED AT 12:20:26 ON 21 MAR 2003

     FILE 'REGISTRY' ENTERED AT 12:24:50 ON 21 MAR 2003
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L2           SEL L1 1- CHEM :        4 TERMS
                SET SMARTSELECT OFF

     FILE 'HCAPLUS' ENTERED AT 12:24:50 ON 21 MAR 2003
L3            73 S L2
L4            10 S L3 (L) (BACTER? OR EUBACTER?)
L5             7 S L4 (L) (D AMINO ACID)
L6             4 S L5 AND PD<20000127
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L6 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:395534 HCAPLUS
DOCUMENT NUMBER: 133:161073
TITLE: Enzymes acting on peptides containing D-amino acid
AUTHOR(S): Asano, Yasuhisa; Lubbehusen, Tina L.
CORPORATE SOURCE: Biotechnology Research Center, Toyama Prefectural University, Toyama, 939-0398, Japan
SOURCE: Journal of Bioscience and Bioengineering (**2000**), 89(4), 295-306
CODEN: JBBIF6; ISSN: 1389-1723
PUBLISHER: Society for Bioscience and Bioengineering, Japan
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 125 refs. Mainly microorganisms but only a few higher organisms are presently known to express enzymes that hydrolyze peptides contg. **D-amino acids**. These enzymes can be involved in proceedings at the **bacterial** cell wall, in either assembly or modification, and thus cause resistance to glycopeptide antibiotics, or mediate resistance against .beta.-lactam antibiotics. In other cases the in vivo function is still unknown. New enzymes screened from nature, such as D-aminopeptidase, **D-amino acid** amidase, alk. D-peptidase or **D-aminoacylase**, offer potential application in the prodn. of **D-amino acids**, the synthesis of **D-amino acid** oligomers by promoting the reversed reaction under appropriate conditions, or in the field of semi-synthetic antibiotics.
REFERENCE COUNT: 125 THERE ARE 125 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:318070 HCAPLUS
DOCUMENT NUMBER: 120:318070
TITLE: N-acyl-D-amino-acid amidohydrolase
AUTHOR(S): Moriguchi, Mitsuaki
CORPORATE SOURCE: Fac. Eng., Oita Univ., Oita, 870-11, Japan
SOURCE: Kagaku to Seibutsu (**1994**), 32(4), 217-9
CODEN: KASEAA; ISSN: 0453-073X
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review with 15 refs. on N-acyl-D-amino acid amidohydrolase of Pseudomonas, Streptomyces, and Alcaligenes, its induction enhancement by N-acetylamino acids, substrate specificity of the enzyme, and homol. of the N-terminal amino acid sequences among the strains.

L6 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:548027 HCAPLUS
DOCUMENT NUMBER: 93:148027
TITLE: Deacetylation of PS-5, a new .beta.-lactam compound. I. Microbial deacetylation of PS-5
AUTHOR(S): Fukagawa, Yasuo; Kubo, Katsuro; Ishikura, Tomoyuki; Kouno, Kageaki
CORPORATE SOURCE: Cent. Res. Lab., Sanraku-Ocean Co., Ltd., Fujisawa, Japan
SOURCE: Journal of Antibiotics (**1980**), 33(6), 543-9
CODEN: JANTAJ; ISSN: 0021-8820
DOCUMENT TYPE: Journal
LANGUAGE: English
AB PS-5 (I) [67007-79-8] deacetylated to NS-5 (II) [74806-75-0] by L-amino acid acylase [9012-37-7] from porcine kidney and **D-amino acid acylase** [**65979-42-2**] from Streptomyces olivaceus, but not by L-amino acid acylase from Aspergillus sp. Using PS-5, N-chloroacetyl-L-phenylalanine, and N-chloroacetyl-D-valine as substrates, acylase producers were screened among facultative MeOH-assimilating **bacteria**. Most of the microbes tested were active and could be classified into 2 groups of L-acylase producers and L- and D-acylase producers. Pseudomonas Sp. 1158,

which deacetylated the 3 substrates, was chosen for further study. Cells of the **bacterium** entrapped in polyacrylamide gel and its acylase activities immobilized on DEAE-Sephadex were useful for conversion of PS-5 to NS-5.

L6 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1980:512323 HCAPLUS
DOCUMENT NUMBER: 93:112323
TITLE: D-Aminoacylase
PATENT ASSIGNEE(S): Sanraku-Ocean Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55042534	A2	19800325	JP 1978-115323	19780919 <--
JP 60031477	B4	19850722		

PRIORITY APPLN. INFO.: JP 1978-115323 19780919

AB A **D-aminoacylase** (I) [**65979-42-2**] was produced by culturing a facultatively MeOH-assimilating **bacterium** at 10-40.degree. and at pH 4.0-9.0. I was reactive to N-acyl **D-amino acids** but not to N-acyl glucosamines or N-acyl ethanolamines, optimally reacting at .apprx.80.degree. and at pH 7.4. I was stable at <80.degree. and at pH 6-7 and had a mol. wt. of 100,000, an isoelec. point of 4.95, and an elemental anal. of C 54.33, H 7.19, and N 16.37. I was inhibited by Hg2+, Cu2+, and p-chloromercuribenzoate. Thus, Pseudomonas species 1158 was cultured with shaking at 28.degree. for 4 days on 100 mL medium (pH 7.0) contg. glucose 2, Pharmamedia 0.8, and corn steep liquor 0.5%. The culture cells were suspended in 500 mL of 0.01M phosphate buffer (pH 7.4) and sonicated to yield an ext. The ext. (830 mL) was mixed with 3 g streptomycin H2SO4 and centrifuged at 10,000 rpm for 30 min at 0.degree. to yield 800 mL supernatant. I in the supernatant was pptd. with addn. of (NH4)2SO4 and purified by column chromatog. on DEAE-Sephacel, Sephadex G-100, and G-200.

NiceZyme View of ENZYME: EC 3.5.1.14

Official Name

Aminoacylase.

Alternative Name(s)

Histozyme.
Hippuricase.
Benzamidase.
Dehydropeptidase II.
Aminoacylase I.
Acylase I.

Reaction catalysed

```
    An N-acyl-L-amino acid
 +  H(2)O
<=>
    a fatty acid anion
 +  an L-amino acid
```

Comments

- Wide specificity; also hydrolyzes dehydropeptides.
- Used in separating D- and L-amino acids.

Cross-references

PROSITE	PDOC00613
BRENDA	3.5.1.14
EMP/PUMA	3.5.1.14
WIT	3.5.1.14
KYOTO UNIVERSITY LIGAND CHEMICAL DATABASE	3.5.1.14
IUBMB Enzyme Nomenclature	3.5.1.14
MEDLINE	Find literature relating to 3.5.1.14
SWISS-PROT	Q03154, ACY1_HUMAN; P37111, ACY1_PIG ; P37112, AMAA_BACST; P37356, AMAA_BACTR;

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